9th INTERNATIONAL PLANETARY PROBE WORKSHOP

Toulouse, France June 18–22, 2012 www.planetaryprobe.eu

Short Course: Probe Science Instrumentation Technologies June 16–17

Program Guide

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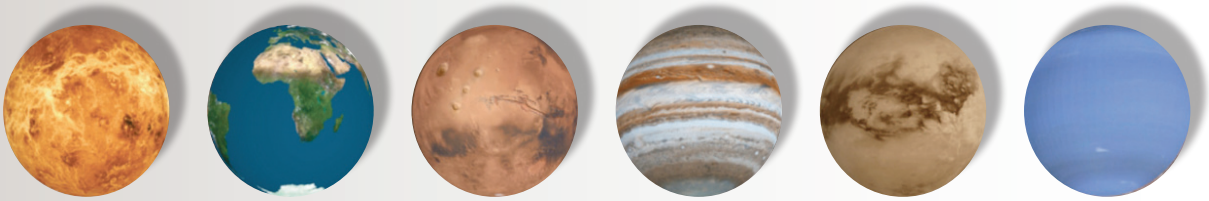


Bienvenue !

Welcome to Toulouse ! L'Institut Supérieur de l'Aéronautique et de l'Espace (founded 1909), the oldest French Grande Ecole dedicated to aeronautics and space, is pleased and honored to host the ninth meeting of the International Planetary Probe Workshop.

In attendance at IPPW-9 is an abundance of participants, a varied program, and ample opportunities for discussion of future collaborations. This year's theme is Space Probe Instrumentation, as reflected in our Short Course and many of the oral and poster presentations. Our community has been very busy over the past year; all of our work has generated an outstanding set of presentations and posters that you will encounter in the next four and a half days.

We are pleased to welcome an international group of scientists, technologists, engineers, mission designers, and policy makers to IPPW-9. Our committees have worked very hard in organizing the logistics for the workshop, planning the program, soliciting and evaluating nominees for the Al Seiff Award, and coordinating opportunities for student participation.

Ideally situated in the heart of Southern France, between the Mediterranean and the Atlantic Ocean, the cosmopolitan and enthusiastic Ville Rose joyously mixes heritage and lifestyle, great cultural events and festival pleasures. Toulouse is an absolute must for everyone wanting to explore France. At once both modern and proud of the legacy of its past, open and radiant, you are bound to be seduced by the incomparable Toulousain lifestyle, coupled with the wealth of its cultural heritage. Your stay in Toulouse will certainly be a pleasurable one.

We encourage you to attend as many oral and poster sessions as possible, in order to benefit from the world-wide planetary probe mission experts attending IPPW-9. We have scheduled a relaxing poster session on Tuesday evening. To better associate the submitted posters with their sessions, we will also have posters available in conjunction with each session. In keeping with agendas at previous IPPWs, we have scheduled parallel oral sessions only on Thursday. Our conveners will coordinate their timing so it will be possible to move back and forth between the parallel sessions in the morning and afternoon. Of interest to our student and early career attendees is a professional development session, scheduled for mid-day on Thursday.

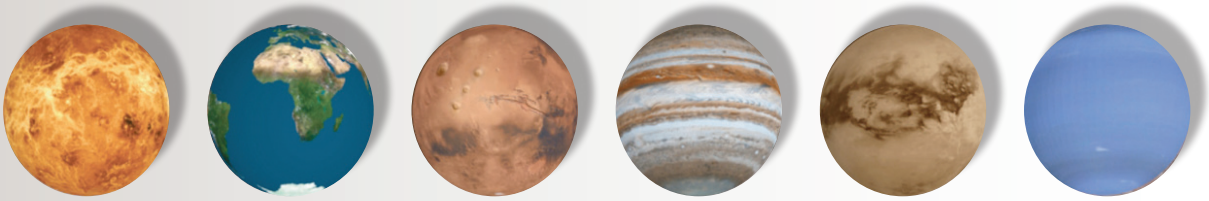
Since IPPW-9 is indeed a workshop, we also urge you to take advantage of the numerous opportunities during coffee breaks, lunches and social activities to build collaborative partnerships with other workshop participants. In addition, the IPPW-9 sponsors have generously funded a large number of students who would be interested in meeting the working planetary probe participants to gain a better understanding of how to build a future career in this exciting field. We are very encouraged to have a sizeable student population with us!

On Friday, 22 June, there will be a presentation on the plans for IPPW-10 in 2013, in the United States. We encourage you to attend this talk to learn about your next opportunity to join our community. In this time of transition for many of our Agencies, it is all the more valuable for us to reconnect with our colleagues and celebrate our strong planetary probe foundations. We encourage you to learn and enjoy our 9th International Planetary Probe Workshop.

Let's make it a great week !

Bernie Bienstock
NASA Jet Propulsion Laboratory
IPPW-9 International Organizing Committee

David Mimoun
Institut Supérieur de l'Aéronautique et de l'Espace
IPPW-9 LOC Chair



IPPW-9 Premium Sponsors

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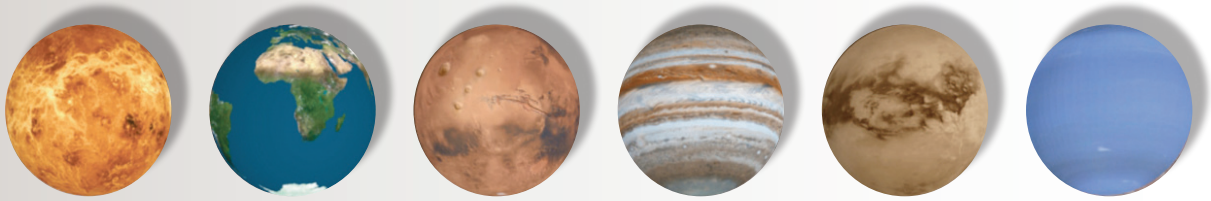

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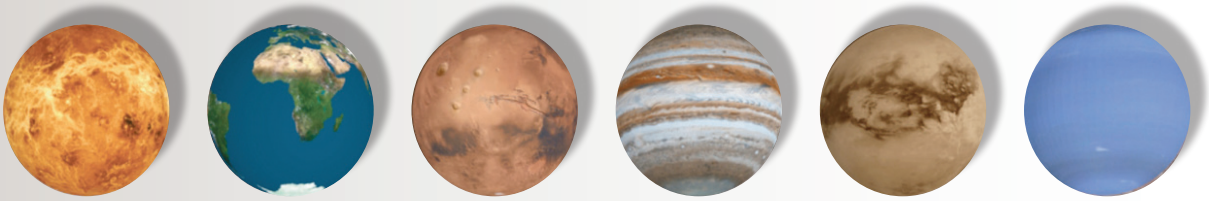
* Members of the Executive IOC



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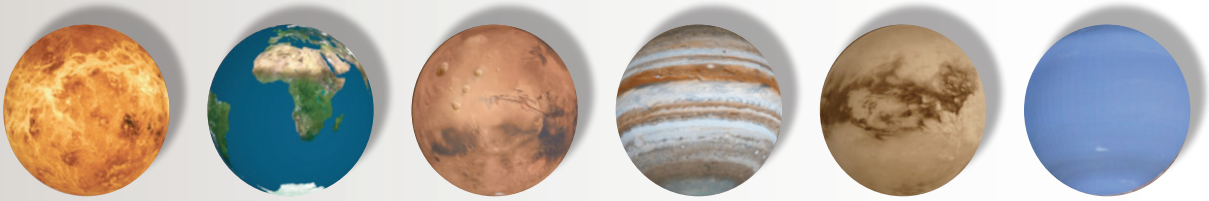

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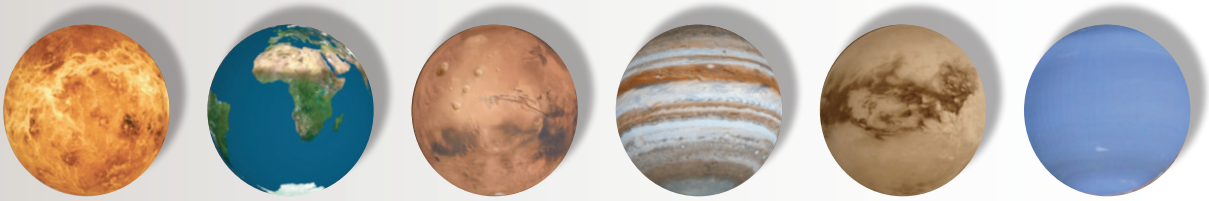


Access to ENSICA

Location: 1, place Émile Blouin - Toulouse

Adress: ISAE - 10 av. Édouard Belin - BP 54032 - 31055 TOULOUSE Cedex 4

Tel: 33 (0)5 61 33 80 80 - Fax: 33 (0)5 61 33 90 85

DO NOT FORGET YOUR PHOTO-ID THE FIRST TIME YOU ACCESS THE ISAE / ENSICA CAMPUS

FROM TOULOUSE - BLAGNAC AIRPORT

Take the airport shuttle to Toulouse city centre. Stop near the SNCF train station.

FROM THE SNCF TRAIN STATION

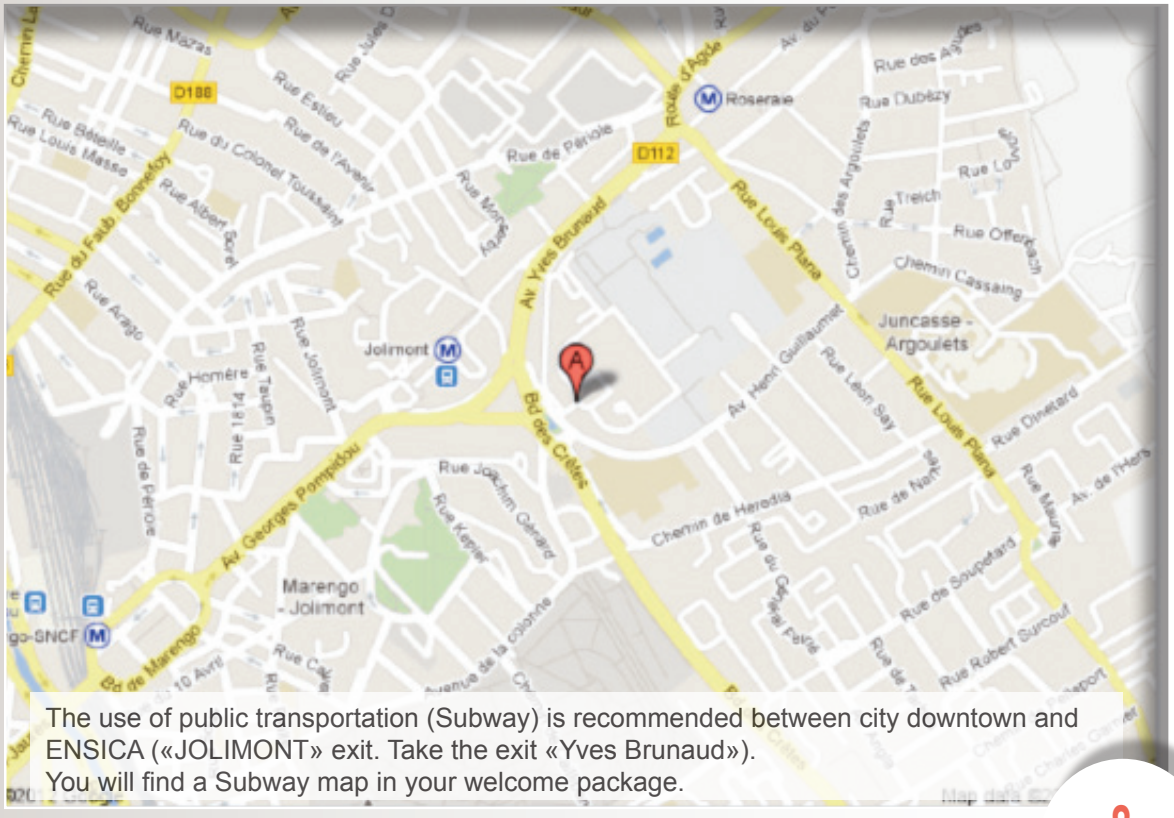
When you are at the train station, follow a subway corridor which will lead you to the subway/ metro station «MARENGO». Take the subway toward «BALMA-GRAMONT» and get off at the «JOLIMONT» exit. Take the exit «Yves Brunaud».

FROM TOULOUSE CENTRE BY WALKING OR BY CAR

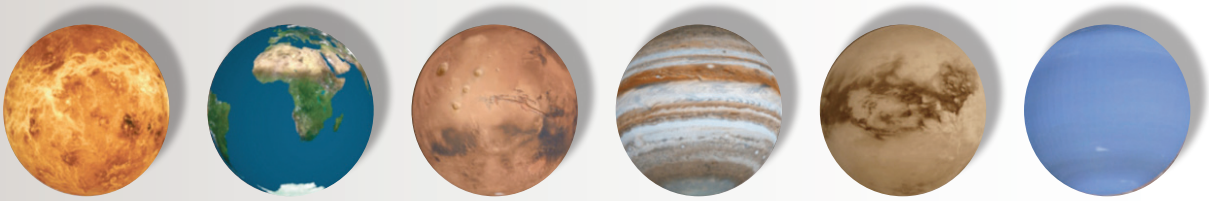
When you have reached the «Riquet» bridge, to the right of the SNCF train station, follow the «Roserraie-Jolimont» direction (around 1,5 km).Signposted from Toulouse – Blagnac airport and A62 «Bordeaux» motorway ; Take exit «15» on East Ring Road. Follow the «Roseraie, Jolimont, SNCF train station» direction ; Drive to the «Place de la Roseraie». Take to the left at the traffic light. Then, to the right into «avenue Yves Brunaud». At the 1st traffic-light, drive across the avenue into the narrow way signposted «ISAE-ENSICA-CEAT». The main entrance is 50 m ahead, opposite the fountain.

BY TAXI

Ask for ISAE - ENSICA, 1, place Émile Blouin in Toulouse.



The use of public transportation (Subway) is recommended between city downtown and ENSICA («JOLIMONT» exit. Take the exit «Yves Brunaud»).
You will find a Subway map in your welcome package.



Access to ENSICA

Access to the ENSICA campus is done via the main entrance. Please be sure to have your photo ID with you the first day, and then your IPPW badge for trouble- free site access.

Student lodging (“Maison des élèves”) is located outside the main campus

Address: 159 rue Louis Plana - 31500 Toulouse . It’s a 10 min walk (see Map)

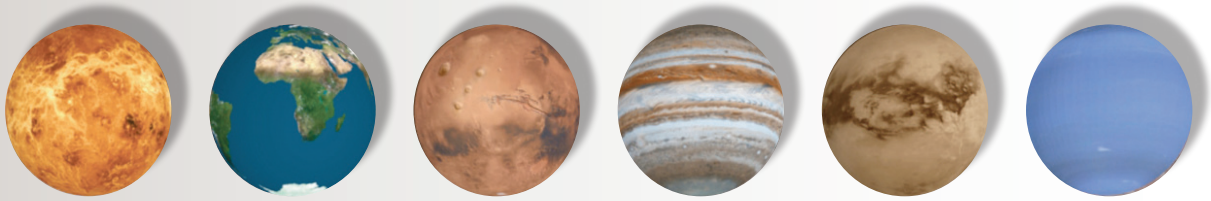
Registration desk is located in the Welcome Hall. It will be open every day from 8:00 to 18:00

Coffee breaks and meals are served in the reception room.

Main session will take place in the Conference room. An overflow room is located in the Latécoère Amphitheater, except for the Thursday parallel sessions.

A personal WIFI access code will be distributed with your welcome package.

A non-closed storage room is located in the mezzanine of the reception room.



Registration

On-site registration (collection of badge and IPPW-9 Program) can be performed in the ENSICA facilities at the following times and locations:

Early Registration

Sunday, June 17, 2012, 16:00 – 19:00, ENSICA Welcome Hall

Main Registration

Monday, June 18, 2012, 07:30 – 8:30, ENSICA Welcome Hall

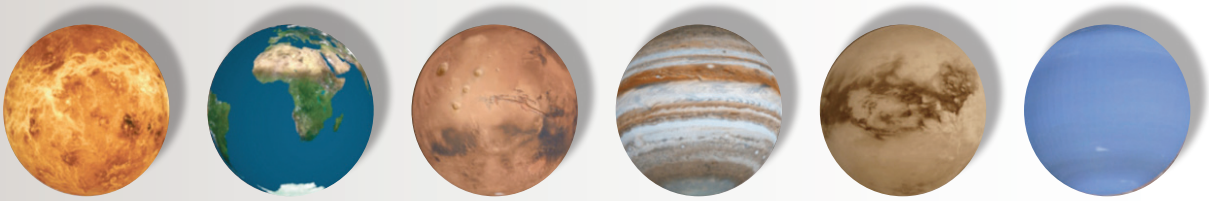
Late Registration

Whenever you arrive, ENSICA Registration (Banquet attendance is limited to 180 persons)

Short Course Agenda

Saturday, June 16, 2012

08:00-08:30	Registration Open for Short Course ENSICA Welcome Hall
08:30-09:15	Overview of Planetary Science Goals & Objectives Michel Blanc – Conference Room
09:15-10:00	Generic Mission Architectures Andrew Ball – Conference Room
10:00-11:30	Coffee Break - Reception Room
10:30-11:15	TPS/Entry System sensors Dan Empey – Conference Room
11:15-12:00	Entry phase plasma study Georg Hedrich – Conference Room
12:00-13:15	Lunch – Reception room
13:15-14:00	Accelerometers – Gyros Francesca Ferri – Conference Room
14:00-14:30	Ultrastable Oscillator (technology focus) Sami Asmar – Conference Room
14:30-15:00	Ultrastable Oscillator (Science focus) Ozgur Karatekin – Conference Room
15:00-15:30	Coffee Break - Reception Room
15:30-16:15	Meteorological sensors Francesca Ferri – Conference Room
16:15-17:00	Atmospheric Electricity on Earth and Planets Jean-Jacques Berthelier – Conference Room



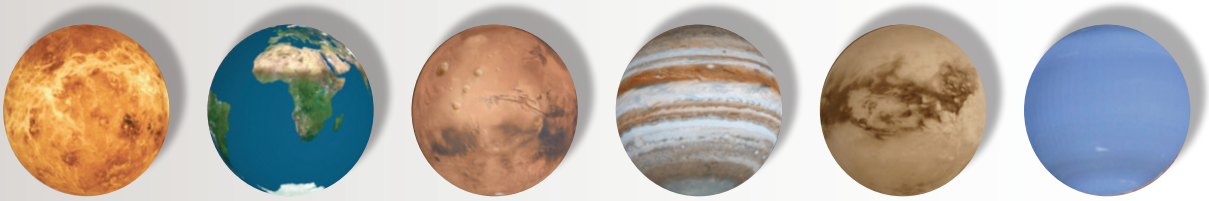
Short Course Agenda

Sunday, June 17, 2012

08:00-08:30	Registration Open for Short Course Welcome Hall
08:30-09:15	Radiometers and Spectrometers – Part 1 Pierre Drossart - Conference Room
09:15-10:00	Radiometers and Spectrometers – Part 2 Pierre Drossart - Conference Room
10:00-10:30	Coffee Break - Reception Room
10:30-11:15	Gas Chromatograph / Mass Spectrometer Paul Mahaffy – Conference Room
11:15-12:00	Raman Fernando Rull– Conference Room
12:00-13:00	Lunch – Reception room
13:00-13:45	Laser Induced Breakdown Spectrometer (LIBS) Fernando Rull– Conference Room
13:45-14:30	Science imaging system for planetary probes Jean-Luc Josset – Conference Room
14:30-15:15	Radar Roland Trautner – Conference Room
15:15-15:45	Coffee Break - Reception Room
15:45-16:15	Reflecting on the short course topics Conference Room
16:15-16:20	Closing statement – Conference Room Tibor Balint

16:00-19:00 Registration Open for Workshop
Welcome Hall

19:00-TBD "College Night" IPPW Student Social
Bar Le Barbu 9, rue Clémence Isaure Toulouse



Monday, June 18, 2012

08:00-08:30	Registration/Coffee Speakers and Conveners Meet in Conference Room

Session 1: Opening Outlook for Probe Missions- Conference room

Conveners: Bernie Bienstock, Jean-Pierre Lebreton

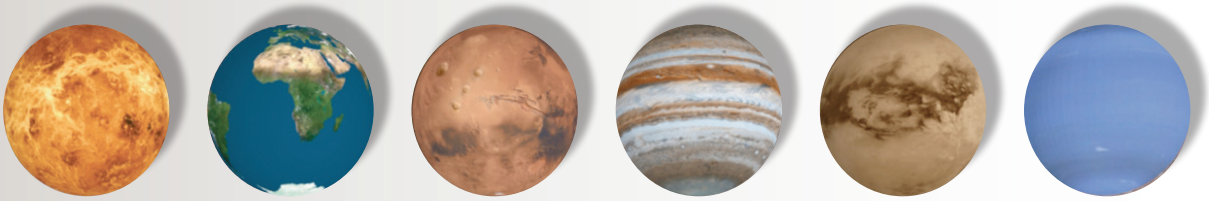
08:30-09:00	Opening Welcome and Logistics F. Thivet – Welcome from ISAE direction D. Mimoun – Logistics B. Bienstock/J-P. Lebreton – Opening of IPPW-9
09:00-09:30	M. Wright: Presentation of the Al Seiff Award R. Braun: Opportunity Taken: The Value of Diverse Career Experience (Invited)
09:30-09:55	P. Bousquet: French Contributions to Entry and Surface Missions (Invited)
09:55-10:20	L. Colangeli: The ESA Science Program for the Progress of European Society (Invited)
10:20-10:50	Coffee
10:50-11:15	J. Reuther: The NASA Space Technology Program and Support of EDL Technologies (Invited)
11:15-11:40	K. Fujita: An Overview of Japan's Planetary Probe Mission Planning (Invited)
11:40-12:05	O. Korablev: Outlook for planetary probe missions in Russia (Invited)
12:05-12:30	J. Cutts: The Next Fifty Years of Planetary Exploration with Probes (Invited)
12:30-14:00	Lunch

Session 2: Giant Planets- Conference room

Conveners: Tom Spilker, Athena Coustenis

14:00-14:25	O. Mousis: A Saturn Entry Probe Mission: What can be learnt from the measurements of heavy noble gas abundances and isotropic ratios (Invited)
14:25-14:50	N. André: Missions to Uranus: Exploring the Origins and Evolution of Ice Giant Planets (Invited)
14:50-15:15	D. Lebleu: Exploring the depths of Saturn (Invited)
15:15-15:40	P. Wurz: Mass spectrometric investigation of the atmospheres of giant planets (Invited)
15:40-16:00	T. Spilker: Saturn Entry Probe Potential for Uranus and Neptune Missions
16:00-16:20	V. Parmentier (Student): Planetary probes into giant planets: what will we learn ?
16:20-16:40	J. Lebreton: The Schumann Resonance: a tool for the in situ and remote sensing exploration of the deep atmosphere of giant planets
16:40-17:10	Coffee

Speakers and Conveners Meet in Conference Room 30 minutes before session start



Monday, June 18, 2012

Session 3: Titan- Conference room

Conveners: Jeff Hall, Francesca Ferri

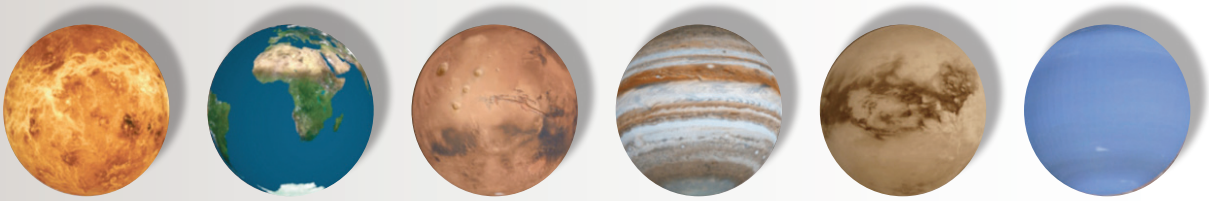
17:10-17:35	R. Lorenz: The Titan Mare Explorer (TiME) Discovery Mission (Invited)
17:35-17:55	P. Beauchamp: The organic aerosols of Titan's atmosphere
17:55-18:15	Scientific rationale of future Titan landing sites
18:15-18:35	F. Sohl: TiNet - A Concept Study for a Titan Geophysical Network
18:35	Evening Activity

Speakers and Conveners Meet in Conference Room 30 minutes before session start

Workshop

WELCOME RECEPTION AND ICE BREAKER

Day: Monday, 18 June 2012
Times: 18:30 – 21:30 – Reception (Light drinks , cocktail)
Location: ENSICA reception Hall
Dress Code: Casual.



Tuesday, 19 June 2012

08:00-08:30	Registration/Coffee Speakers and Conveners Meet in Conference Room

Session 3 cont. : Titan - Conference room

Conveners: Jeff Hall, Francesca Ferri

08:30-08:50	R. Thissen: Orbitrap Mass Analyser: a Tool for Titan Complex Molecular Content Exploration
08:50-09:10	A. Brandis: Modeling and Validation of CN Violet Radiation Relevant to Titan Entry
09:10-09:30	J. Hall: Titan Montgolfiere Balloon Analysis and Design Using Computational Fluid Dynamics Simulations
09:30-09:50	J. Nott: Lessons for Titan balloons from recent terrestrial experience
09:50-10:10	G. Dorrington: Buoyancy Estimation of a Titan Aerostat
10:10-10:30	D. Akita: A Simple Entry, Descent, and Floating System for Planetary Ballooning
10:30-11:00	Coffee

Session 4: Venus - Conference room

Conveners: Colin Wilson, Anita Sengupta

11:00-11:20	S. Limaye: Exploring Venus With Balloons - Science Objectives and Recent Technical Advances
11:20-11:40	C. Wilson: The European Venus Explorer (EVE) 2010 mission proposal
11:40-12:00	A. Sengupta: Development of a Venus Entry System for the Surface and Atmospheric Geochemical Explorer
12:00-12:20	C. Kelley: Parachute Development for Venus Missions
12:20-12:40	D. Mehoke: Technologies for a Long Duration Lander on the Surface of Venus
12:40-14:10	Lunch
14:10-14:35	E. Venkatapathy: A Game Changing Approach to Venus In-Situ Science Missions Using Adaptive Deployable Entry and Placement Technology (Invited)
14:35-15:00	S. Limaye: Sampling the Unexplored Regions of Venus (Invited)
15:00-15:20	G. Dorrington: Venus Atmospheric Platform Options Reconsidered
15:20-15:45	M. Barucci: MarcoPolo-R: Asteroid Sample Return Mission (Invited: Airless & Primitive Bodies)
15:45-16:15	Coffee

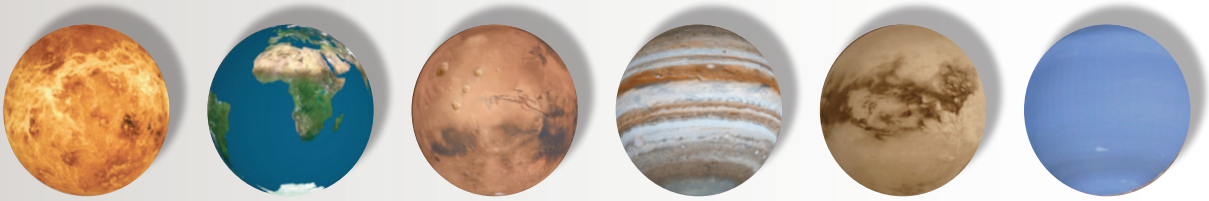
Session 5: Mars- Conference room

Conveners: Karl Edquist, Jill Prince, Ozgur Karatekin

16:15-16:40	F. Ferri: ExoMars Atmospheric Mars Entry and Landing Investigations and Analysis (AMELIA) (Invited)
16:40-17:00	T. Walloschek: ExoMars EDM Mission and Development Status
17:00-17:20	M. Munk: Status of the Mars Entry Atmospheric Data System (MEADS) Hardware and Data Reconstruction Effort
17:20-17:40	T. White: Status of the MEDLI Integrated Sensor Plug (MISP) Hardware and Data Reconstruction Effort
17:40-18:00	M. Perkinson: Mission Architecture and System Design of a Mars Precision Lander
18:00-18:20	M. Chapuy: Vision-based navigation solution for soft and precise landing on Mars

Workshop

Speakers and Conveners Meet in Conference Room 30 minutes before session start



Tuesday, 19 June 2012

POSTER SESSION/WINE & CHEESE
Convener: Ioana Cozmuta

Session 2

D. Atkinson: Scientific Value of a Saturn Atmospheric Probe Mission

Session 3

A. Solomonidou (Student): Cryovolcanic candidate regions on Titan: Promising landing sites

A. Solomonidou (Student): Titan lake investigation with MEMS

V. Caso (Student): Simulation of Titan atmosphere by an arc-heated facility

G. Bampasidis (Student): MEMS-based seismic sensors on Titan and Enceladus

Session 4

E. Stern (Student): CFD Simulations of the Dynamic Stability of Deployable Aeroshells for Venus Entry

Session 5

P. Withers: Empirical predictions of martian surface pressure in support of the landing of Mars Science Laboratory

Z. Wu: The simulation of one side of tetrahedron airbags impact attenuation system

S. Dutta (Student): Integrated Trajectory, Atmosphere, and Aerothermal Reconstruction Methodology Using the MEDLI Dataset

H. Haukka (Student): High Level Shock Tests for Mars MetNet Penetrator Payload

M. De Sanctis: Mars subsurface analysis: a drilling system coupled with a miniaturized spectrometer

W. Rapin (Student): Wind Noise Analysis for a Very Broad Band Seismometer for Mars 2016

S. De Raucourt: The Mars seismic experiment of the InSight Mission

Combined Sensor Assembly COMARS for Martian Atmospheric Entry

I. Egorov: Results of experimental study in TsAGI IT-2 Hot Shot wind tunnel

P. Omaly: ICOTOM: Narrow Band Infrared radiometer

D. Zely: Mars Sample Return - Sample Container

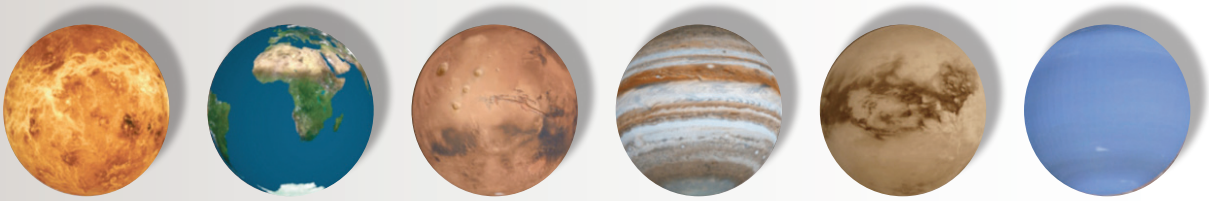
G. Leplat: Mars Aerocapture Technique: Aerothermodynamic Issues

D. Marceta (Student): Influence of Martian Atmospheric Cycles on Damkohler Numbers Height Profiles

L. Pompilio: An ultra-miniaturised XRD/XRF instrument for in situ analysis of planetary surfaces

L. D'Uston: CHEMCAM: An Instrument for In Situ Analysis of Planetary Surface Composition

P. Vernis: Accurate Entry Guidance for a Mars Precision Landing



Tuesday, 19 June 2012

POSTER SESSION/WINE & CHEESE
Conveners: Ioana Cozmuta

Session 6 A

Z. Putnam (Student): Drag Modulation Flight Control for Planetary Aerocapture Systems

D. Bose: The Hypersonic Inflatable Decelerator (HIAD) Mission Applications Study

J. Cruz-Ayoroa (Student): Mass Model Development for Conceptual Design of a Hypersonic Rigid Deployable Decelerator

A. Olds: Simulation of IRVE-3 Flight Dynamics

D. Fletcher: Surface Catalyzed Reaction Efficiency Measurements for Flexible TPS Materials

R. Diaz-Silva (Student): Novel Computational Simulations of Inflatable Aerodynamic Decelerators during deployment

D. Jurewicz: Application of High Pressure Textile Inflatable Structures for Planetary Probes

M. Bopp (Student): Analysis of Fluid-Structure Interactions with Application to Inflatable Aerodynamic Decelerators

J. McKinney: Commercial Crew Vehicle Parachute and Airbag Testing

E. Venkatapathy: Conformal Ablative Thermal Protection System for Planetary and Human Exploration Missions

B. Helber (Student): Characterization of Innovative Carbon/Composite Ablators for Future Space Exploration Missions in Reentry Environments

Session 6 B

W. Huang: Analysis of Minimum Ejection Velocity and Angle Range for Parachute into the Current

N. Bauer (Student): Small Probes for Orbital Return of Experiments Mission Design

G. Vekinis: Interim Results of the RASTAS SPEAR Project

S. Paris: Experimental determination of the dynamic derivatives of the ARV Reentry Module

M. Gritsevich: Coupling of blowing and roughness effects in the Spalart–Allmaras turbulence model

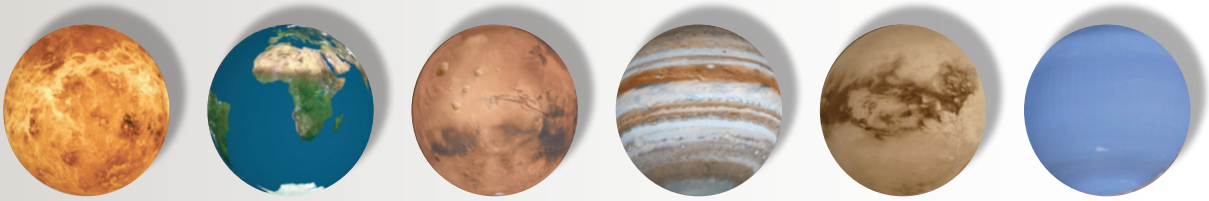
D. Kuznetsova (Student): Earth entry observations: Solution to inverse problem with incomplete data

M. Nehrenz (Student): Characterization of the Entry State Uncertainty for SPORE

J. Pierre (Student): CanSat: multiphysics experimental design of a probe come back mission

K. Reilley (Student): EntrySat: A Study of the Atmospheric Re-Entry Environment

J. Juneau (Student): Design of the SPORE Small Probe High Altitude Balloon Drop Test



Tuesday, 19 June 2012

POSTER SESSION/WINE & CHEESE
Conveners: Ioana Cozmuta

Session 6 B cont.

J. Benton (Student): Development of Precision Parafoil Flight at Very High Altitude For Sample Return Applications

K. Ramus (Student): Characterizing an Experimental Decelerator for Delivering Nano-Sat Payloads to Planetary Surfaces»

J.M. Trigo-Rodriguez: Promoting Sample Return Missions from Undifferentiated Bodies

N. Cheatwood: Flight Performance of the Inflatable Reentry Vehicle Experiment 3 (IRVE-3)

H. Tanno: Aeroheating test of entry capsule models in high-enthalpy and high-pressure flow

Session 7 A

M. Fulchignoni: Lesson learned by asteroid exploration missions

P. Wurz: The Callisto Descent Probe

J. Delaune (Student): Pinpoint Landing Navigation with a Camera: Design and Preliminary Hardware Validation

S. Fornasier: Rosetta fly-bys with the asteroids 2867 Steins and 21 Lutetia

P. Meslin: DORN/NITON: Alpha Spectrometers to Study the Transport of Volatiles on the Moon/Mars

E. Palomba: VISTA: a thermogravimetry/biosensor system for in-situ analysis of planetary surfaces

S. Nouvellon (Student): Thermal Design of a Lunar Penetrator

A. Rivkin: Next Gen NEAR: Near Earth Asteroid Human Robotic Precursor Mission Concept

P. Wurz: A miniaturised laser-ablation mass spectrometer for in-situ chemical analysis of planetary solids

T. Steiner (Student): Development and Testing of an Integrated Navigation Sensor for Planetary Hopper Navigation

F. Hillier (Student): Power and Thermal design for Ganymede and Europa Penetrators

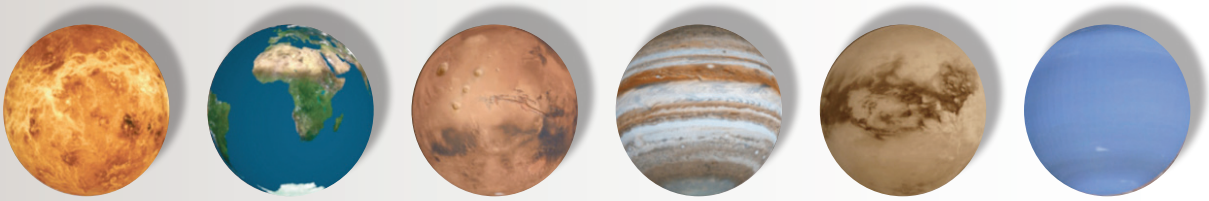
B. Ballard: NASA's Robotic Lunar Lander Development Program

J. Laifr (Student): Lunar Dust Environment and Plasma Package for Lunar Lander – Definition Study

C. Briois: ILMA: Ion Laser Mass Analyser. A High-Resolution Mass-Spectrometer for In-Situ Characterization of a Near Earth Asteroid (NEA)

S. Sheridan: A mole deployed mass spectrometer for sub-surface volatile detection and characterisation at airless bodies

G. Dolnikov: Dusty plasma near Moon surface



Tuesday, 19 June 2012

POSTER SESSION/WINE & CHEESE
Conveners: Ioana Cozmuta

Session 7 B

S. Cornelli (Student): SIMION Simulations of a new Orbitrap Spectrometer Prototype for Space Application

F. Cairo: LIDAR Technologies for Aerosol Profiling in Planetary Atmospheres

O. Bompis: Frequencies Consideration for Surface Communications in the Lunar Region

G. Cimo: Planetary Radio Interferometry and Doppler Experiment for Near-Earth Asteroids ESA mission MarcoPolo-R

L. Thirkell: High Resolution Orbitrap Mass Spectrometer for In-Situ Analysis in Planetary Science: Prototype results.

R. Riggs (Student): Development of Smaller Power Technologies For Use in Planetary Probes

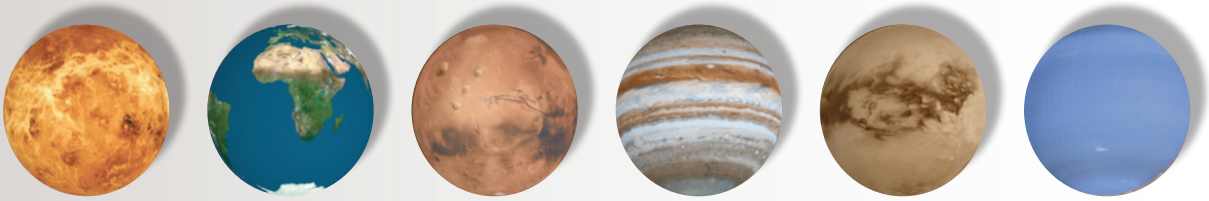
K. Oudrhiri: Enhancing Planetary Wind Measurements with Radio Science Flight Instruments

C. Gonzalez (Student): Printed Microstrip Antennas Designed for Small Spacecraft at Ultra High Frequencies

J. Hill (Student): In-situ Strain and Deformation Measurements of Inflatable Aeroshell Test Articles

H. Truong (Student): Nano-Composite Materials for the Construction of Space Probes – An Investigation on Fracture Toughness of Hybrid Interfaces

M. Grover: NASA Thermal Performance Data System



Wednesday, 20 June 2012

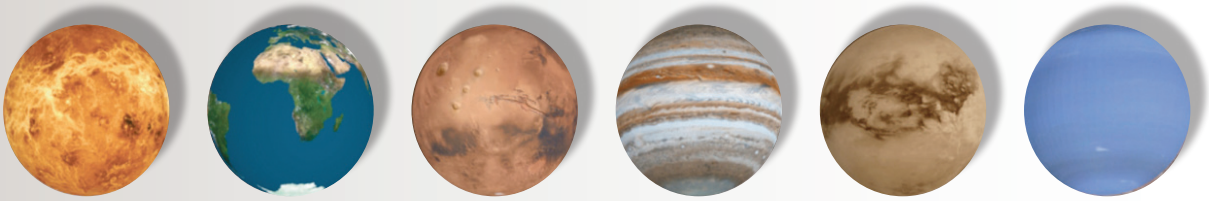
08:00-08:30	Registration/Coffee Speakers and Conveners Meet in Conference Room

Session 5 Cont.: Mars- Conference room

Conveners: Karl Edquist, Jill Prince, Ozgur Karatekin

08:30-08:50	B. Van Hove (Student): Obtaining Atmospheric Profiles during Mars Entry
08:50-09:10	M. Sorgenfrei (Student): Revision of a Parametric Entry, Descent, and Landing Design Tool for Mars Exploration
09:10-09:30	D. Bonetti: Optimum Sizing for Design of Mars Probes
09:30-09:50	A. Korzun (Student): Conceptual Modeling of Supersonic Retropropulsion Flow Interactions and the Relationship to System Performance
09:50-10:10	A. Guelhan: Improvement of Experimental and Numerical Tools for Safe and Controlled Martian Entry
10:10-10:40	Coffee
10:40-11:00	R. Kovalev: Experimental and Numerical Simulation of Martian Entry Conditions
11:00-11:20	A. Kolesnikov: Simulation of heat transfer and surface catalysis for EXOMARS entry conditions
11:20-11:40	K. Fujita: Technology Development toward Mars Aeroflyby Sample Collection
11:40-12:00	T. Chabot: Robust Autonomous Aerobraking Strategies
12:00-12:20	A. Sanchez Hernandez (Student): IPPW-9 Dynamical study of the aerobraking technique in the atmosphere of Mars
12:20	Bag Lunch/Field Trip
18:30	Bus for banquet departing from ENSICA
19:00	Banquet at «La cité de l'espace»

Speakers and Conveners Meet in Conference Room 30 minutes before session start



Wednesday, 20 June 2012

Visit To Albi (optional)

Day: Wednesday, 20 June 2012

Times: Buses will leave ENSICA at 12:45 sharp (Outside the Welcome Hall)
Return to Cité de l'Espace at 18:30

Location: A bus service will be provided to and from Albi – Departure from ENSICA

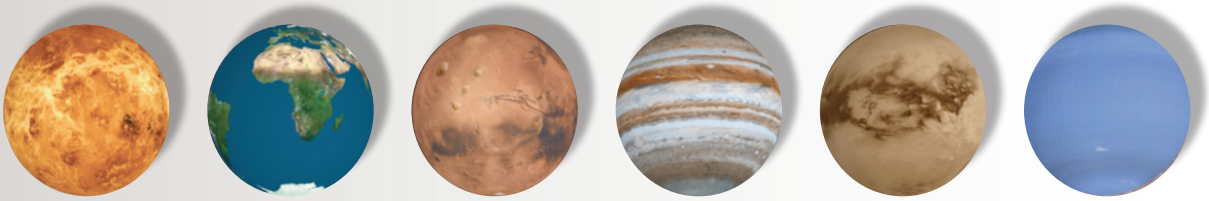
Transportation: Transportation will be provided to and from the Banquet.

If you are taking the Tour of Albi, the bus will take you back at the Banquet at the cite de l'Espace directly for 18:30. For those not attending the Cité de l'Espace banquet, a second stop will be done next to city downtown.

Max Participants: 65 persons. If you are not registered, please check at the desk if there is some place left.

An English-speaking guide will take you to the Toulouse Lautrec Museum and in the streets of the the "vieil Alby" (Old Albi). The Episcopal city of Albi has been classified a UNESCO world heritage of humanity in August 2010.

The visit of the museum, located in the bishop's palace, allows discovering a unique collection in an exceptional building. Toulouse-Lautrec museum keeps the most remarkable public collection worldwide dedicated to the famous Albi-born painter. Paintings, lithographs, sketches, and the entirety of the bills created by Henri de Toulouse-Lautrec testify in an exceptional way each side of the multiform and innovative artist's talent.



Wednesday, 20 June 2012

Banquet at «la Cité de l'Espace»

Day:	Wednesday, 20 June 2012	
Times:	18:30	Bus departure from ENSICA – Bus from Albi will make a stop at the cité de l'Espace (If you are not taking the Albi Tour, there will be a bus leaving from ENSICA at 18:30 to take you to the Banquet (and return you to the hotel after the Banquet).
	19:00	Visit of the Cité de l'Espace museum, including the Mars temporary exhibition
		Stellarium animation - Jazz band
	20:30-23:30	Dinner
Location:	Cité de l'Espace - Avenue Jean Gonord 31500 Toulouse - GPS 43°35'12'' North 1°29'38'' East	
Dress Code:	Casual	
Arrival:	Transportation will be provided to and from the Banquet. If you are taking the Tour of Albi, you will be taken to the Banquet directly	
Return:	First stop at ENSICA – Second Stop downtown	

The Cité de l'espace (City of Space) is a theme park oriented towards space and the conquest of space. It was inaugurated in June 1997 and is situated on the eastern outskirts of Toulouse in France. More than 4 million visitors have already visited it after 13 years of exploitation. The park makes it possible to visit full scale models of the rocket Ariane 5 (55 metres in height), Mir space station, and Soyuz modules. A 140 seat and a 280 seat planetarium presents spectacles throughout the day. Cité de l'Espace is also equipped with numerous exhibits, often interactive, for example, the control room close to the model of Ariane 5, makes it possible to prepare the launching of a rocket, help with its flight and then place a satellite in orbit! Terradome (a terrestrial half-sphere 25 m in diameter) presents the history of the space from the Big-bang to the solar system. The building of Australia, opened in 2005, includes a new 280 seat planetarium, equipped with a hemispherical screen of 600 m ², an IMAX cinema presenting Space Station 3D, a 3D film on board the International Space Station, the Stellarium, and conference rooms.

TO GET TO CITÉ DE L'ESPACE

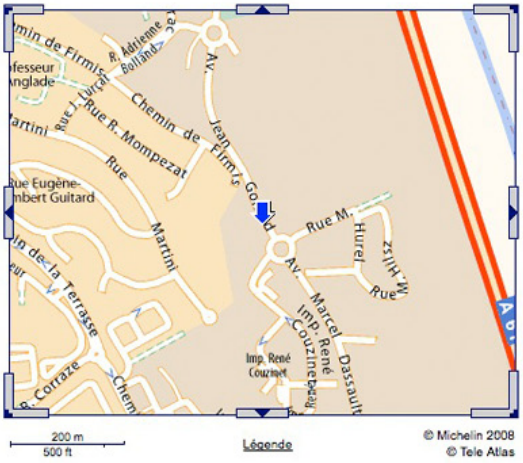
By car:

From Toulouse city centre,
follow the signs to "Cité de l'espace" or "Castres" (15 min).
From the Toulouse ring road, take exit n° 17.
25 minutes from Toulouse – Blagnac international airport.
GPS geographical coordinates :
43° 35' 12'' latitude North – 1° 29' 38'' longitude East

By public transport:

take bus 37 from the Jolimont underground station going to La Plaine.
Ask for the Cité de l'espace bus stop.
Sunday and public holidays:
take underground line A, get off at Marengo and take bus 37 towards La Plaine,
ask for the Cité de l'espace

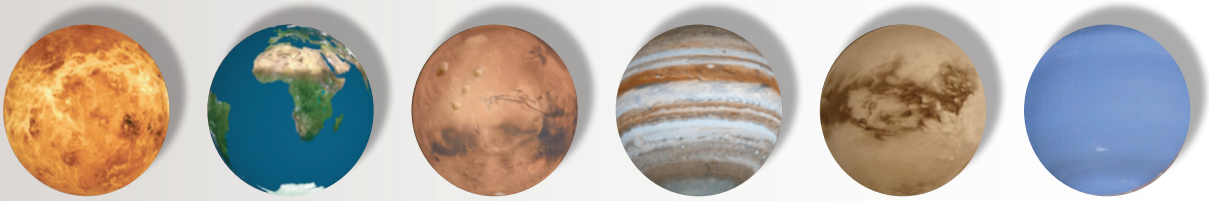
Detailed map by Via Michelin:



Free parking available on-site

Cité de l'espace

Avenue Jean Gonord
F - 31500 TOULOUSE
Tél: 0 820 377 223
Fax: 05 61 80 74 70



Thursday, 21 June 2012

08:00-08:30	Registration/Coffee Speakers and Conveners Meet in Conference Room

Session 6A: Cross-Cutting Technologies I - Conference room

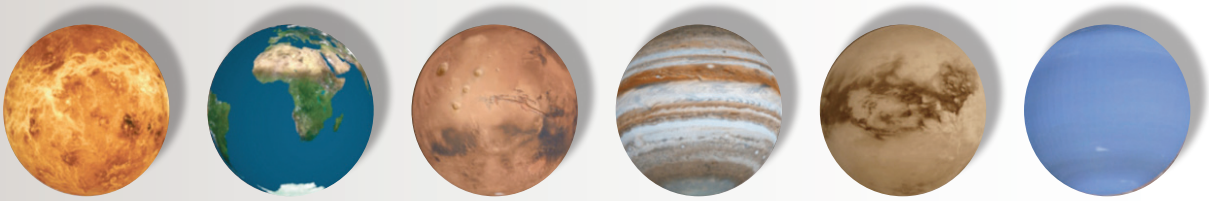
Conveners: Aaron Morris, Ali Guelhan

08:30-08:55	N. Cheatwood: NASA Game Changing Development Program - Entry, Descent, and Landing Overview (Invited)
08:55-09:15	K. Edquist: Supersonic Retropropulsion Technology Development in NASA's Entry, Descent, and Landing Project
09:15-09:35	J. Del Corso: Aerothermal Ground Testing of Flexible Thermal Protection Systems for Hypersonic Inflatable Aerodynamic Decelerators
09:35-09:55	J. Knittel (Student): Optimized StarBody Waverider Shapes for Lifting Aerocapture
09:55-10:15	A. Saunders: Sub-scale, high-altitude testing of parachutes; a low-cost methodology for the characterisation of parachutes for planetary entry
10:15-10:35	B. Tutt: Modeling the Structural Performance of Hypersonic Inflatable Aerodynamic Decelerators
10:35-11:05	Coffee
11:05-11:25	N. Cheatwood: HEART Flight Test Overview
11:25-11:45	D. Jurewicz: Design and Verification of Full-Scale Inflatable Aeroshell Structures for Hypersonic Applications
11:45-12:05	A. Calomino: Flexible Thermal Protection System Design and Margin Policy
12:05-12:25	J. Del Corso: Flexible Thermal Protection System Development for Hypersonic Inflatable Aerodynamic Decelerators
12:25-12:45	E. Venkatapathy: Deployable Aeroshell Technology Maturation Plan and Progress: Enabling Planetary In-Situ Science Missions
12:45-14:20	Lunch/Professional Development

Speakers and Conveners Meet in Conference Room 30 minutes before session start

Professional Development Session

The goal of the Professional Development Session is to provide a forum for students to engage and interact with professionals on topics relevant to careers in planetary science, technologies and engineering. The session will include brief presentations from a panel of representatives from U.S. and European aerospace industry, academia, NASA, and ESA. Students will have ample opportunity to ask questions of the panelists. Specific topics include expert advice from the panelists on careers in planetary sciences and aerospace engineering, as well as lessons learned and advice.



Thursday, 21 June 2012

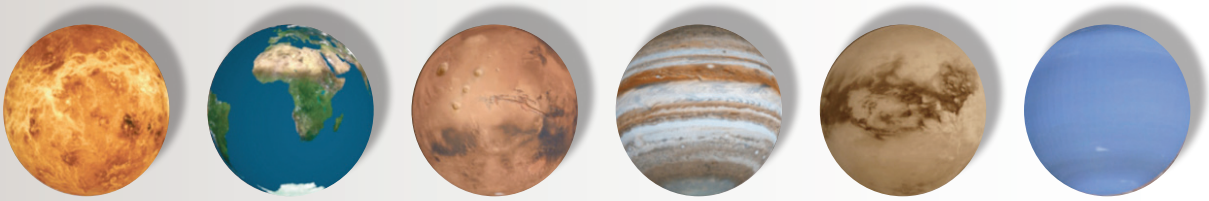
08:00-08:30	Registration/Coffee Speakers and Conveners Meet in Latecoère amphitheater

Session 6B: Earth Entry & Sample Return - Latécoère amphitheater

Conveners: Michelle Munk, Todd White, Jean Muylaert

08:30-08:55	J. Bouilly: RASTAS SPEAR: Radiation Shape Thermal Protection Investigation for High Speed Re-Entry (Invited)
08:55-09:15	T. Yamada: Post-Flight Analysis of the Hayabusa Sample Return Capsule
09:15-09:35	M. Munk: Multi-Mission Earth Entry Vehicle Development by NASA's In-Space Propulsion Technology (ISPT) Project
09:35-09:55	L. Ferracina: PHOEBUS a hypervelocity entry demonstrator
09:55-10:15	G. Bailet (Student): Re-entry Platform for In-flight Demonstration and In-situ Measurement
10:15-10:35	A. Sengupta: Orion Multi-Purpose Crew Vehicle Drogue Parachute Performance
10:35-11:05	Coffee
11:05-11:25	M. Murbach: The Small Payload Quick Return (SPQR) System as a Testbed for Future Planetary Probe Missions
11:25-11:45	J. Heilimo: Adapting Mars Entry, Descent and Landing System for Earth
11:45-12:05	K. Hirai: IR&D Studies of Light Weight Ablator for Future Reentry Capsule Heatshield
12:05-12:25	H. Ritter: ESA TPS Activities for Sample Return Missions
12:25-12:45	R. Lorenz: A Review of Apollo Splashdowns - Influence of Cavity Resurge on Stability
12:45-14:20	Lunch/Professional Development

Speakers and Conveners Meet in Latecoère amphitheater 30 minutes before session start



Thursday, 21 June 2012 - Afternoon

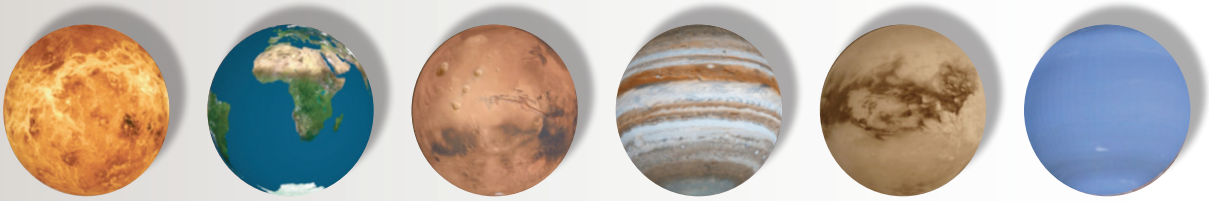
Session 7A: Airless & Primitive Bodies - Conference room

Conveners: Louise Prockter, Jens Biele

14:20-14:40	B. Houdou: The European Lunar Lander: A Human Exploration Precursor Mission
14:40-15:00	E. Zaunick: Innovative Visual Navigation Solutions for ESA's Lunar Lander Mission
15:00-15:20	R. Garcia: Farside Explorer mission project and internal seismic structure of the Moon
15:20-15:40	G. Orlando: Application of Simultaneous Localization and Mapping algorithm to Terrain Relative Navigation for Lunar Landing
15:40-16:00	R. Gowen: A low cost penetrator mission to study lunar volatiles
16:00-16:30	Coffee
16:30-16:50	S. Tardivel (Student): A simple, robust and adaptable strategy for ballistic landings on small binary bodies
16:50-17:10	S. Ulamec: Lander Concepts for MarcoPolo-R
17:10-17:30	A. Rivkin: MERLIN: Mars-Moon Exploration, Reconnaissance and Landed Investigation
17:30-17:50	L. Prockter: Roadmap for and potential science return of a Europa Lander Mission
17:50-18:10	R. Gowen: An astrobiology Payload Complement for a Europa Penetrator
18:10-18:30	S. Vijendran: Design of an Astrobiology Penetrator and Delivery System

Speakers and Conveners Meet in Conference Room 30 minutes before session start

Workshop



Thursday, 21 June 2012 - Afternoon

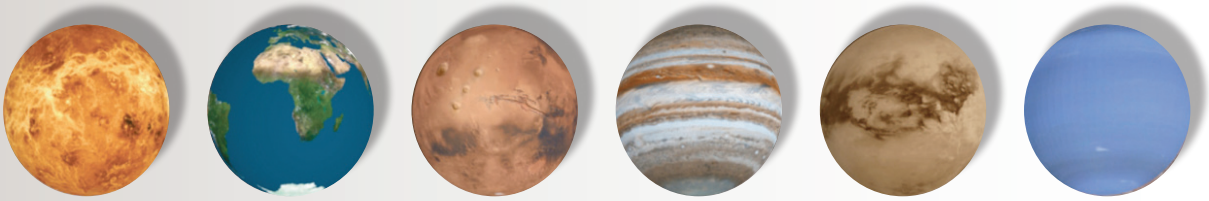
Session 7B: Cross-Cutting Technologies II - Latécoère amphitheater

Conveners: Dan Empey, Kelly Geelen, Jose Santos

14:20-14:40	R. Trautner: ESA supported Chip and ASIC Technology Developments for Exploration Missions including Planetary Probes
14:40-15:00	L. Deutsch: NASA Space Communications and Navigation Support to Planetary Probe Missions
15:00-15:20	B. Dachwald: Development and Testing of a Maneuverable Subsurface Probe That Can Navigate Autonomously Through Deep Ice
15:20-15:40	C. Pearson (Student): Investigating the Composition of Enceladus via Primary Lander and Underwater Microorganism Explorer (ICEPLUME)
15:40-16:00	D. Bonetti: Robust and Autonomous Aerobraking Strategies
16:00-16:30	Coffee
16:30-16:50	M. Adler: Low-Density Supersonic Decelerator Technology Demonstration Mission
16:50-17:10	I. Clark: Development and Testing of a New Family of Low-Density Supersonic Decelerators
17:10-17:30	C. Tanner (Student): Fluid-Structure Interaction Analyses of a Tension Cone Inflatable Aerodynamic Decelerator
17:30-17:50	G. Molera Calves: VLBI and Doppler tracking of Venus Express spacecraft
17:50-18:10	G. Swanson (Student): Instrumentation for the Characterization of Inflatable Structures
18:10-18:30	A. Guarneros Luna (Student): A Flight Technology Demonstration of a Space Plug and Play Avionics (SPA) Module for Future Planetary Probes

Speakers and Conveners Meet in Latecoère amphitheater 30 minutes before session start

Workshop



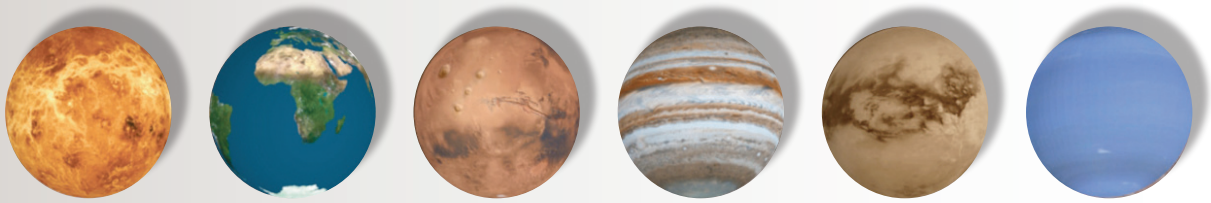
Workshop

Friday, 22 June 2012

Session 8: Closing - Conference room

Conveners: David Mimoun, Periklis Papadopoulos

08:30-08:35	Introduction - P. Papadopoulos
08:35-09:10	B. Johns: Austerity In the Age of Innovation (Invited)
09:10-09:40	Student Awards Presentations - S. Ruffin
09:40-10:10	Coffee
10:10-10:45	IPPW-9 Summary - P. Bousquet
10:45:11:00	IPPW-9 IOC Report - B. Bienstock
11:00-11:15	Open Forum - D. Mimoun
11:15-11:30	Introduction of IPPW-10 - P. Papadopoulos
11:30-11:35	Closing and Farewell - D. Mimoun



Program at a glance: Monday 18, June 2012

9th International Planetary Probe Workshop, Toulouse, France

Monday, 18 June 2012

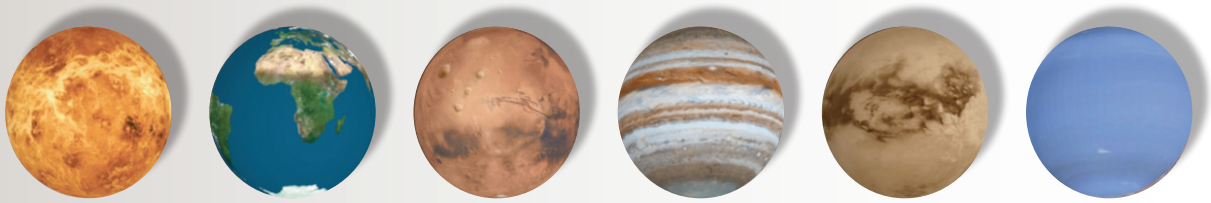
Time	Duration	Session	Id	Description	Conveners
08:00	30			Registration/Coffee	
08:30	30	Session 1		Opening Welcome and Logistics D. Mimoun – Logistics B. Bienstock/J-P. Lebreton – Opening of IPPW-9	Bernie Bienstock Jean-Pierre Lebreton
09:00	30	Opening; Outlook for Probe Missions		M. Wright: Presentation of the Al Seiff Award	
				R. Braun: Opportunity Taken: The Value of Diverse Career Experience (Invited)	
09:30	25			P. Bousquet: French Contributions to Entry and Surface Missions (Invited)	
09:55	25		195	L. Colangeli: The ESA Science Program for the Progress of European Society (Invited)	
10:20	30			Coffee	
10:50	25		194	J. Reuther: The NASA Space Technology Program and Support of EDL Technologies (Invited)	
11:15	25		164	K. Fujita: An Overview of Japan's Planetary Probe Mission Planning (Invited)	
11:40	25		132	O. Korablev: Outlook for planetary probe missions in Russia (Invited)	
12:05	25		112	J. Cutts: The Next Fifty Years of Planetary Exploration with Probes (Invited)	
12:30	90			Lunch	
14:00	25	Session 2	47	O. Mousis: A Saturn Entry Probe Mission: What can be learnt from the measurements of heavy noble gas abundances and isotropic ratios (Invited)	Tom Spilker
14:25	25	Giant Planets	138	N. André: Missions to Uranus: Exploring the Origins and Evolution of Ice Giant Planets (Invited)	Athena Coustenis
14:50	25		116	D. Lebleu: Exploring the depths of Saturn (Invited)	
15:15	25		141	P. Wurz: Mass spectrometric investigation of the atmospheres of giant planets (Invited)	
15:40	20		168	T. Spilker: Saturn Entry Probe Potential for Uranus and Neptune Missions	
16:00	20		35	V. Parmentier (Student): Planetary probes into giant planets : what will we learn ?	
16:20	20		170	J. Lebreton: The Schumann Resonance: a tool for the in situ and remote sensing exploration of the deep atmosphere of giant planets	
16:40	30			Coffee	
17:10	25	Session 3	31	R. Lorenz: The Titan Mare Explorer (TiME) Discovery Mission (Invited)	Jeff Hall
17:35	20	Titan	183	P. Beauchamp: The organic aerosols of Titan's atmosphere	Francesca Ferri
17:55	20		124	F. Sohl: Scientific rationale of future Titan landing sites	
18:15	20		71	C. Lange: TiNet - A Concept Study for a Titan Geophysical Network	
18:35				Welcome Cocktail And Ice Breaker	

Program at a glance: Tuesday 19, June 2012

9th International Planetary Probe Workshop, Toulouse, France

Tuesday, 19 June 2012

Time	Duration	Session	Id	Description	Conveners
08:00	30			Registration/Coffee	
08:30	20	Session 3, cont.	163	R. Thissen: Orbitrap Mass Analyser: a Tool for Titan Complex Molecular Content Exploration	Jeff Hall
08:50	20	Titan	127	A. Brandis: Modeling and Validation of CN Violet Radiation Relevant to Titan Entry	Francesca Ferri
09:10	20		8	J. Hall: Titan Montgolfiere Balloon Analysis and Design Using Computational Fluid Dynamics Simulations	
09:30	20		22	J. Nott: Lessons for Titan balloons from recent terrestrial experience	
09:50	20		14	G. Dorrington: Buoyancy Estimation of a Titan Aerostat	
10:10	20		133	D. Akita: A Simple Entry, Descent, and Floating System for Planetary Ballooning	
10:30	30			Coffee	
11:00	20	Session 4	102	S. Limaye: Exploring Venus With Balloons - Science Objectives and Recent Technical Advances	Colin Wilson
11:20	20	Venus	169	C. Wilson: The European Venus Explorer (EVE) 2010 mission proposal	Anita Sengupta
11:40	20		104	A. Sengupta: Development of a Venus Entry System for the Surface and Atmospheric Geochemical Explorer	
12:00	20		154	C. Kelley: Parachute Development for Venus Missions	
12:20	20		41	D. Mehoke: Technologies for a Long Duration Lander on the Surface of Venus	
12:40	90			Lunch	
14:10	25		144	E. Venkatapathy: A Game Changing Approach to Venus In-Situ Science Missions Using Adaptive Deployable Entry and Placement Technology (Invited)	
14:35	25		153	S. Limaye: Sampling the Unexplored Regions of Venus (Invited)	
15:00	20		69	G. Dorrington: Venus Atmospheric Platform Options Reconsidered	
15:20	25	(Session 7A Invited)	6	M. Barucci: MarcoPolo-R: Asteroid Sample Return Mission (Invited: Airless & Primitive Bodies)	
15:45	30			Coffee	
16:15	25	Session 5	74	F. Ferri: ExoMars Atmospheric Mars Entry and Landing Investigations and Analysis (AMELIA) (Invited)	Karl Edquist
16:40	20	Mars	140	T. Walloschek: ExoMars EDM Mission and Development Status	Jill Prince
17:00	20		29	M. Munk: Status of the Mars Entry Atmospheric Data System (MEADS) Hardware and Data Reconstruction Effort	Ozgur Karatekin
17:20	20		101	T. White: Status of the MEDLI Integrated Sensor Plug (MISP) Hardware and Data Reconstruction Effort	
17:40	20		37	M. Perkinson: Mission Architecture and System Design of a Mars Precision Lander	
18:00	20		72	M. Chapuy: Vision-based navigation solution for soft and precise landing on Mars	
18:20	130	Poster Session		Poster Session- Wine & Cheese	Ioana Cozı
20:30		End of day			



Program at a glance: Wednesday 20, June 2012

9th International Planetary Probe Workshop, Toulouse, France

Wenesday, 20 June 2012

Time	Duration	Session	Id	Description	Conveners
08:00	30			Registration/Coffee	
08:30	20	Session 5, cont. Mars	136	B. Van Hove (Student): Obtaining Atmospheric Profiles during Mars Entry	Karl Edquist
08:50	20		52	M. Sorgenfrei (Student): Revision of a Parametric Entry, Descent, and Landing Design Tool for Mars Exploration	Jill Prince
09:10	20		134	D. Bonetti: Optimum Sizing for Design of Mars Probes	Ozgur Karatekin
09:30	20		4	A. Korzun (Student): Conceptual Modeling of Supersonic Retropropulsion Flow Interactions and the Relationship to System Performance	
09:50	20		79	A. Guelhan: Improvement of Experimental and Numerical Tools for Safe and Controlled Martian Entry	
10:10	30			Coffee	
10:40	20		86	R. Kovalev: Experimental and Numerical Simulation of Martian Entry Conditions	
11:00	20		3	A. Kolesnikov: Simulation of heat transfer and surface catalysis for EXOMARS entry conditions	
11:20	20		155	K. Fujita: Technology Development toward Mars Aeroflyby Sample Collection	
11:40	20		19	T. Chabot: Robust Autonomous Aerobraking Strategies	
12:00	20		51	A. Sanchez Hernandez (Student): IPPW-9 Dynamical study of the aerobraking technique in the atmosphere of Mars	
12:20	210	Field Trip		Bag Lunch/Field Trip	
19:00	180	Banquet		Cite de l'Espace - Visit	
20:30				Cite de l'Espace - Banquet	
22:00		End of day			

Program at a glance: Thursday 21, June 2012

9th International Planetary Probe Workshop, Toulouse, France

Thursday, 21 June 2012

Time	Duration	Session	Id	Description	Conveners	Session	Id	Description	Conveners
08:00	30			Registration/Coffee				Registration/Coffee	
08:30	25	Session 6A Cross-Cutting Technologies I	175	N. Cheatwood: NASA Game Changing Development Program - Entry, Descent, and Landing Overview (Invited)	Aaron Morris	Session 6B Earth Entry & Sample Return	40	J. Bouilly: RASTAS SPEAR : Radiation Shape Thermal Protection Investigation for High Speed Re-Entry (Invited)	Michelle Munk
08:55	20		21	K. Edquist: Supersonic Retropropulsion Technology Development in NASA's Entry, Descent, and Landing Project	Ali Guelhan		192	T. Yamada: Post-Flight Analysis of the Hayabusa Sample Return Capsule	Todd White
09:15	20		89	J. Del Corso: Aerothermal Ground Testing of Flexible Thermal Protection Systems for Hypersonic Inflatable Aerodynamic Decelerators			28	M. Munk: Multi-Mission Earth Entry Vehicle Development by NASA's In-Space Propulsion Technology (ISPT) Project	Jean Muylaert
09:35	20		63	J. Knittel (Student): Optimized StarBody Waverider Shapes for Lifting Aerocapture			46	L. Ferracina: PHOEBUS a hypervelocity entry demonstrator	
09:55	20		166	A. Saunders: Sub-scale, high-altitude testing of parachutes; a low-cost methodology for the characterisation of parachutes for planetary entry			2	G. Bailet (Student): Re-entry Platform for In-flight Demonstration and In-situ Measurement	
10:15	20		178	B. Tutt: Modeling the Structural Performance of Hypersonic Inflatable Aerodynamic Decelerators			103	A. Sengupta: Orion Multi-Purpose Crew Vehicle Drogue Parachute Performance	
10:35	30			Coffee				Coffee	
11:05	20		137	N. Cheatwood: HEART Flight Test Overview			176	M. Murbach: The Small Payload Quick Return (SPQR) System as a Testbed for Future Planetary Probe Missions	
11:25	20		148	D. Jurewicz: Design and Verification of Full-Scale Inflatable Aeroshell Structures for Hypersonic Applications			84	J. Heilimo: Adapting Mars Entry, Descent and Landing System for Earth	
11:45	20		109	A. Calomino: Flexible Thermal Protection System Design and Margin Policy			131	K. Hirai: IR&D Studies of Light Weight Ablator for Future Reentry Capsule Heatshield	
12:05	20		110	J. Del Corso: Flexible Thermal Protection System Development for Hypersonic Inflatable Aerodynamic Decelerators			76	H. Ritter: ESA TPS Activities for Sample Return Missions	
12:25	20		185	E. Venkatapathy: Deployable Aeroshell Technology Maturation Plan and Progress: Enabling Planetary In-Situ Science Missions			24	R. Lorenz: A Review of Apollo Splashdowns - Influence of Cavity Resurge on Stability	
12:45	95			Lunch/Professional Development	Ioana Cozmuta			Lunch/Professional Development	Ioana Cozmuta
14:20	20	Session 7A Airless & Primitive Bodies	45	B. Houdou: The European Lunar Lander: A Human Exploration Precursor Mission	Louise Prockter	Session 7B Cross-Cutting Technologies II	96	R. Trautner: ESA supported Chip and ASIC Technology Developments for Exploration Missions including Planetary Probes	Dan Empey
14:40	20		118	E. Zaunick: Innovative Visual Navigation Solutions for ESA's Lunar Lander Mission	Jens Biele		7	L. Deutsch: NASA Space Communications and Navigation Support to Planetary Probe Missions	Jose Santos
15:00	20		87	R. Garcia: Farside Explorer mission project and internal seismic structure of the Moon			30	B. Dachwald: Development and Testing of a Maneuverable Subsurface Probe That Can Navigate Autonomously Through Deep Ice	Kelly Geelen
15:20	20		120	G. Orlando: Application of Simultaneous Localization and Mapping algorithm to Terrain Relative Navigation for Lunar Landing			82	C. Pearson (Student): Investigating the Composition of Enceladus via Primary Lander and Underwater Microorganism Explorer (ICEPLUME)	
15:40	20		149	R. Gowen: A low cost penetrator mission to study lunar volatiles			114	D. Bonetti: Robust and Autonomous Aerobraking Strategies	
16:00	30			Coffee				Coffee	
16:30	20		81	S. Tardivel (Student): A simple, robust and adaptable strategy for ballistic landings on small binary bodies			98	M. Adler: Low-Density Supersonic Decelerator Technology Demonstration Mission	
16:50	20		25	S. Ulamec: Lander Concepts for MarcoPolo-R			99	I. Clark: Development and Testing of a New Family of Low-Density Supersonic Decelerators	
17:10	20		67	A. Rivkin: MERLIN: Mars-Moon Exploration, Reconnaissance and Landed Investigation			11	C. Tanner (Student): Fluid-Structure Interaction Analyses of a Tension Cone Inflatable Aerodynamic Decelerator	
17:30	20		161	L. Prockter: Roadmap for and potential science return of a Europa Lander Mission			139	G. Molera Calves: VLBI and Doppler tracking of Venus Express spacecraft	
17:50	20		151	R. Gowen: An astrobiology Payload Complement for a Europa Penetrator			172	G. Swanson (Student): Instrumentation for the Characterization of Inflatable Structures	
18:10	20		147	S. Vijendran: Design of an Astrobiology Penetrator and Delivery System			182	A. Guarneros Luna (Student): A Flight Technology Demonstration of a Space Plug and Play Avionics (SPA) Module for Future Planetary Probes	
19:30	120	IOC dinner							
21:30		End of day							

Program at a glance: Friday 22, June 2012

9th International Planetary Probe Workshop, Toulouse, France

Friday, 22 June 2012

Time	Duration	Session	Id	Description	Conveners
08:00	30			Registration/Coffee	
08:30	5	Session 8 Closing		Introduction - P. Papadopoulos	David Mimoun
08:35	35		80	B. Johns : Austerity In the Age of Innovation	Periklis Papadapolous
09:10	30			Student Awards Presentations - S. Ruffin	
09:40	30			Coffee	
10:10	35			IPPW-9 Summary - P. Bousquet	
10:45	15			IPPW-9 IOC Report - B. Bienstock	
11:00	15			Open Forum - D. Mimoun	
11:15	15			Introduction of IPPW-10 - P. Papadopoulos	
11:30	5			Closing and Farewell - D. Mimoun	

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